



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

5150863
D6103-003
Job Sheet 189649



Part No: D6103-003

Job Qty: 20 pcs

Part Name: Round Billet, Aluminum



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 1/29/19

Job Tracking No:

Due Date: 2/22/19

Created By: Chrisoula Tsimiklis

Type: Stock

Description:

Note: DWG REV B

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier	Sign-off
					Setup Hrs	Run Hrs		
100	Purchasing	20 pcs	2/22/19		0.00	0.00	Purchasing - 1	
							Purchasing - 2	<i>AT 1/29/19</i>
							Purchasing - 3	
110	Packaging 2-1 - Receive - B4B	20 pcs	2/22/19		0.00	0.00	Packaging 2 - 1 - B4B	
							Packaging 2 - 2 - B4B	
							Packaging 2 - 3 - B4B	
							Packaging 2 - 5 - B4B	
							Packaging 2 - 4 - B4B	
							Packaging 2 - 6 - B4B	
							Packaging 2 - 7 - B4B	
							Packaging 2 - 8 - B4B	
							Packaging 2 - 9 - B4B	
							Packaging 2 - 10 - B4B	
							Packaging 2 - 11 - B4B	
							Packaging 2 - 12 - B4B	
							Packaging 2 - 13 - B4B	
							Packaging 2 - 14 - B4B	
							Packaging 2 - 15 - B4B	
							Packaging 2 - 16 - B4B	
							Packaging 2 - 17 - B4B	
							Packaging 2 - 18 - B4B	
							Packaging 2 - 19 - B4B	
							Packaging 2 - 20 - B4B	
							Packaging 2 - 21 - B4B	
							Packaging 2 - 22 - B4B	
							Packaging 2 - 23 - B4B	
							Packaging 2 - 24 - B4B	
							Packaging 2 - 25 - B4B	
							Packaging 2 - 26 - B4B	
							Packaging 2 - 27 - B4B	
							Packaging 2 - 28 - B4B	<i>AT 1/29/19</i>

					Packaging 2 - 29 - B4B	
					Packaging 2 - 30 - B4B	
					Packaging 2 - 31 - B4B	
					Packaging 2 - 32 - B4B	
					Packaging 2 - 33 - B4B	
					Packaging 2 - 34 - B4B	
					Packaging 2 - 35 - B4B	
					Packaging 2 - 36 - B4B	
120	QC 18	20 pcs	2/22/19	0.00 0.00	QC 18 - 12	
					QC 18 - 14	
					QC 18 - 22	
					QC 18 - 25	
					QC 18 - 38	
					QC 18 - 38	
					QC 18 - 42	
					QC 18 - 48	
					QC 18 - 58	DAS
					QC 18 - 61	61
					QC 18 - 9	9-89
130	Packaging 3-1 - Stock - B4B	20 pcs	2/22/19	0.00 0.00	Packaging 3 - 1 - B4B	
					Packaging 3 - 2 - B4B	
					Packaging 3 - 3 - B4B	
					Packaging 3 - 4 - B4B	
					Packaging 3 - 5 - B4B	
					Packaging 3 - 6 - B4B	
					Packaging 3 - 7 - B4B	
					Packaging 3 - 8 - B4B	
					Packaging 3 - 9 - B4B	
					Packaging 3 - 10 - B4B	
					Packaging 3 - 11 - B4B	
					Packaging 3 - 12 - B4B	
					Packaging 3 - 13 - B4B	
					Packaging 3 - 14 - B4B	mxl 9/02/06
					Packaging 3 - 15 - B4B	
					Packaging 3 - 16 - B4B	
					Packaging 3 - 17 - B4B	
					Packaging 3 - 18 - B4B	
					Packaging 3 - 19 - B4B	
					Packaging 3 - 20 - B4B	
					Packaging 3 - 21 - B4B	
					Packaging 3 - 22 - B4B	
					Packaging 3 - 23 - B4B	
					Packaging 3 - 24 - B4B	
					Packaging 3 - 25 - B4B	
					Packaging 3 - 26 - B4B	
					Packaging 3 - 27 - B4B	
					Packaging 3 - 28 - B4B	
					Packaging 3 - 29 - B4B	
					Packaging 3 - 30 - B4B	
					Packaging 3 - 31 - B4B	
					Packaging 3 - 32 - B4B	
					Packaging 3 - 33 - B4B	
					Packaging 3 - 34 - B4B	
					Packaging 3 - 35 - B4B	
					Packaging 3 - 36 - B4B	
140	QC 21 - SA	20 pcs	2/22/19	0.00 0.00	QC 21 - SA - 21	DAS
					QC 21 - SA - 70	21 FEB 06 2009

Part Op 100 - (Purchasing) Issue P/O: 042426 a)Description: Alluminum round billet b) Ø3.500" x 12.500" long c) Descriptions: Tolerance on all dimensions are +0.030"/-0.000" d) Material: 7075-T7351 (QQ-A-225/9) Material certification required

110 - (Receive & Inspect for Damage & Mat'l Certs) Ensure material certification is attached
120 - QC18 (QC18 In-Coming Inspection Material)
130 - (Identify as per dwg & Stock Location: _____) LOCATION: MAT043
140 - (QC21- Final Inspection - Work Order Release)

CT X20 19-01-29

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D6103-003P	Round Alum Billet	20 pcs (1 ea)	100-Purchasing	5150859

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
100-Purchasing	D6103-003P	20	0	0

Part Specifications

Specifications could not be found.

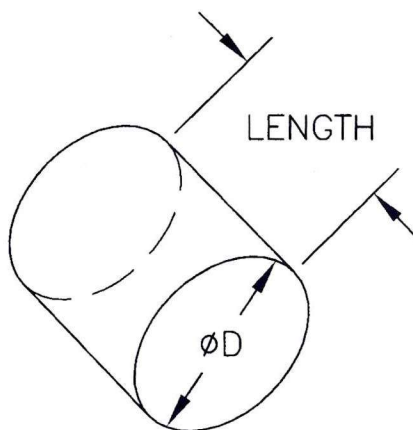
Plex 1/29/19 10:52 AM dart.tsimiklis.chrisoula



DESIGN <i>P/H</i>	DRAWN BY <i>P/H</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D6103	Rev. B SHEET 1 OF 1
DATE 06.01.31		TITLE ROUND BILLET, ALUMINUM	SCALE NTS
A	01.04.10	NEW ISSUE	
B	06.01.31	ADD D6103-003	

SPECIFICATION CONTROL DRAWING

RELEASED
06.02.07 *[Signature]*



PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, DIAMETER x LENGTH (+0.030/-0.000) AS SHOWN.

TOLERANCE ON ALL DIMENSIONS IS +0.030/-0.000.

ALL DIMENSIONS ARE IN INCHES.

Part No.	Alloy	D (Diameter)	Length
D6103-001	7075-T6/T651 (QQ-A-200/11 OR QQ-A-225/9)	Ø3.250	12.50
D6103-003	7075-T7351 (QQ-A-225/9)	Ø3.500	12.50

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Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

PO042426



Supplier: MEC002-VU
Metaux Castle
P.O. Box 4090 Stn A
Toronto
ON
M5W OE9 Canada

PO No: PO042426

PO Date: 1/29/19

Due Date: 2/21/19

Purchase Order

Revision:

Revision Date:

Ship-To Contact: Tsimiklis, Chrisoula

Via: Ground

Pymt Terms: Net 30

Freight Terms:

Special Comments:

E-MAILED
JAN 29 2019

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Items

Line Item	Job	Part	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
1	189641	D6101-003P		7075-T7351 2X6.25X7.875 : Various STC's AS PER DWG D6101 REV. B SIZE: 7.875" X 6.250" X 2.00" THICK GRAIN DIRECTION ALONG 7.875" LENGHT MATERIAL: 7075- T7351 QQ-A-250/12 TOLERANCE AS PER QUOTE +.030"/-.000"	Firmed	-	2/21/19	20 pcs	0 pcs	20 pcs	\$38.82/pcs	\$776.40
2	189642	D6101-015P		Aluminum Billet : Various STC's As per Dwg D6101 Rev. B	Firmed	-	2/21/19	20 pcs	0 pcs	20 pcs	\$57.20/pcs	\$1,144.00
3	189647	D6101-017P		Aluminum Billet : Various STC's As per Dwg D6101 Rev. B	Firmed	-	2/21/19	16 pcs	0 pcs	16 pcs	\$32.64/pcs	\$522.24

Plex 1/29/19 11:25 AM dart.tsimiklis.chrisoula



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

PO042426



Items

Line Item	Job	Part	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
4 ✓ AT	189649	D6103-003P		Round Alum Billet : Various STC's AS PER DWG D6103 REV. B MATERIAL: 7075-T7351 AS PER QQ-A-225/9 SIZE: 3.500" X 12.500" LONG	Firmed	-	2/21/19	20 pcs ✓	0 pcs 22x	20 pcs AT 19/02/05	\$60.40/pcs	\$1,208.00
5 ✓ AT	189651	D6104-003P		17-4 SS Roundbar 3.25"Od : Various STC's	Firmed	-	2/21/19	12 pcs ✓	0 pcs 12x	12 pcs AT 19/02/05	\$26.70/pcs	\$320.40
6 ✓ AT	189652	D6104-011P		17-4 SS Roundbar 6.50"OD : Various STC's	Firmed	-	2/21/19	20 pcs ✓	0 pcs 20x	20 pcs AT 19/02/05	\$128.20/pcs	\$2,564.00

Grand Total: \$6,535.04

Order Notes

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Procurement Quality Clauses

- A005 RIGHT OF ENTRY
- A007 FIRST ARTICLE INSPECTION (FAI) BY SELLER, (DOCUMENTATION MAINTAINED BY SUPPLIER)
- A012 CHEMICAL AND PHYSICAL TEST REPORTS
- A016 PERSONNEL QUALIFICATION
- A017 RAW MATERIAL IDENTIFICATION (AS APPLICABLE)
- A026 CERTIFICATION OF MATERIAL CONFORMANCE
- A041 QUALITY MANAGEMENT SYSTEM
- A042 DART NOTIFICATION BY SUPPLIER
- A043 RETENTION OF QUALITY DOCUMENT
- A048 COUNTERFEIT PARTS AVOIDANCE, DETECTION, MITIGATION AND DISPOSITION PROGRAM
- A049 SUPPLIER AWARENESS

Plex 1/29/19 11:25 AM dart.tsimiklis.chrisoula

**Castle Metals®**

A. M. Castle & Co.

PACKING SLIP/
CERTIFICATE OF CONFORMANCE

Page 1 of 1

Shipment No:3816998

Ship From: A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN		Sold To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		Ship To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN		Deliver To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	
Date Shipped	F.O.B.	Freight Terms		Carrier		BOL No	
01-FEB-19	ORIGIN	Prepaid		MANITOULIN		3816998-2	

Shipment Details	Final Destination Branch - TOR
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Order No	Line No	Item No	Description				
5386716	1	8808.MO	3.5000..RD.7075.T7351.ALUMINUM.CF.144.0000 CUT TO 12.5 IN (+ .1250/- .0000 IN) - BAND SAW CUTTING SPECIFICATIONS: AMS-QQ-A-225/9				
Purchase Order No		Part Number		Ordered Qty		Invoice Qty	
42426		YOUR ITEM NUMBER: D6103-003		22.00 PCS		22.00 PCS	
Details		ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S Email P/s and certs to: clavoie@dartaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS					
Delivery No.	Mill/Source	Heat Number	Mech Id	PCS	Width (IN)	Length (IN)	Shipped Qty(LBS)
122531234	ARCONIC INC			22			266.7582

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.

Reviewed by Authorized Castle Metals Representative:

FEB 01 2019

Date:

Name: *Kalou*

Date Printed: 01-FEB-2019 02:14:16 PM

26647016

Certified Inspection Report

08/22/18
12:29:26

Arconic Inc.
ARCONIC ENGINEERED STRUCTURES
45 County Route 42, Massena, NY 13662



Customer **Castle A M & Co** Customer P.O. No. **42232** Customer Part No. **(8808)** Arconic Order No. **MME-C8144-001** Govt. Contract No.

Ship To **Castle A M & Co**
2150 Argentinia Road
Mississauga, ON L5N 2K7

We hereby certify that the material covered in this report has been inspected in accordance with, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the description, or as previously agreed to with customer and that samples representative of the material met the composition limits and have the mechanical properties shown on the face of this sheet. Manufactured under a quality management system registered to ISO/AS9100. Melted and manufactured in the USA.

Ted Miller
Ted Miller, Quality Manager

Date Shipped **08/22/18** Weight Shipped **1,974 lbs** Product **CFRB-CF ROD** Specific Length **BOL 000166122**
Alloy - Temper **7075-T7351** Size **3.50000 IN** Shape **DIA** Config **12 FT** QRR

Specifications:

A97075-11 Rev 16 w/exceptions & comments
per Massena QA email 6-22-18
AMS4124E
ASTMB211-12E1
Material conforms to T73 reqmts
Minimum mechanical properties to apply:
68 KSI Tensile Strength
56 KSI Yield Strength
10% Elongation
QQ-A-225/9E (Except Size)
AMS-QQ-A-225/9A (Except Size)

213

213 214507



TEST REQUIREMENTS	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test
	U.T.S.	T.Y.S.	%Elong	Cond						
Max:		67.9								
Min:	68.0	56.0	10.0	38.0						

Test Results	Lot / Work Order	No. of Tests	Test	Test	Test	Test	Test	Test	Test	Test	Test
			U.T.S.	T.Y.S.	%Elong	Cond					
	MA20181619	1	75.3	65.5	15.0	40.7					
			75.3	65.5	15.0	40.7					

TEST ABBREVIATIONS

U.T.S. Ultimate Tensile Strength KSI
Cond Conductivity % IACS

T.Y.S. Tensile Yield Strength KSI .2% offset

%Elong Elongation % in 2"

Aluminum Association Chemical Composition Limits (in Weight %)

ALLOY	MAX	%SI	%FE	%CU	%MN	%MG	%CR	%ZN	%TI	%Others	%Others	%AL			
7075	MIN	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05	0.15	Rem			
				1.2		2.1	0.18	5.1		Each	Total				

Actual Started Chemistry

LOT/WORK ORDER	MAX	%SI	%FE	%CU	%MN	%MG	%CR	%ZN	%TI	%OE	%OT	%AL			
MA20181619	MIN	0.08	0.14	1.6	0.03	2.5	0.20	5.8	0.02	LT 0.05	LT 0.15	Rem			
		0.06	0.13	1.6	0.01	2.4	0.20	5.7	0.02						

Certified Inspection Report

08/22/18
12:29:26

Arconic Inc.
ARCONIC ENGINEERED STRUCTURES
45 County Route 42, Massena, NY 13662



Customer Castle A M & Co	Customer P.O. No. 42232	Customer Part No. (8808)	Arconic Order No. MME-C8144-001	Govt. Contract No.
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NOTES:

Ingot Source: Vista Metals GA
Material compliant with DFARS 252.225-7001 (Buy American Act)
Mercury is not a normal contaminant in aluminum alloys and neither it nor any of its compounds are used in the manufacture of our product.
This alloy meets the requirements of EU 2011/65/EC (RoHS) and EU 2000/53/EC for lead, mercury, cadmium and hexavalent chromium.

THESE ITEMS ARE CONTROLLED BY THE U.S. GOVERNMENT AND AUTHORIZED FOR EXPORT ONLY TO THE COUNTRY OF ULTIMATE DESTINATION FOR USE BY THE ULTIMATE CONSIGNEE OR END-USER(S) HEREIN IDENTIFIED. THEY MAY NOT BE RESOLD, TRANSFERRED, OR OTHERWISE DISPOSED OF, TO ANY OTHER COUNTRY OR TO ANY PERSON OTHER THAN THE AUTHORIZED ULTIMATE CONSIGNEE OR END-USER(S), EITHER IN THEIR ORIGINAL FORM OR AFTER BEING INCORPORATED INTO OTHER ITEMS, WITHOUT FIRST OBTAINING APPROVAL FROM THE U.S. GOVERNMENT OR AS OTHERWISE AUTHORIZED BY U.S. LAW AND REGULATIONS.

MATERIAL IS OF U.S.A. ORIGIN AND WE HEREBY CERTIFY THE PRICES TO BE TRUE AND CORRECT.

213214507



MATERIAL RECEIPT INSPECTION FORM

MATERIAL: D6103-003
 DATE: 1902205

PO / BATCH NO.: P0042426 / 5150863

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 22x
 QUANTITY INSPECTED: 22x
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 3.500"
 THICKNESS RECEIVED: 3.500"
 SHEET SIZE ORDERED: —
 SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	☒ N	
CORRECT FINISH	☒ Y	N	
CORROSION	Y	☒ N	
CORRECT GRAIN DIRECTION	☒ Y	N	
CORRECT MATERIAL PER M-DRAWING	☒ Y	N	<u>AMS QA-A-225/19</u>
CORRECT THICKNESS	☒ Y	N	
PHOTO REQUIRED	Y	☒ N	
CORRECT REF # TO LINK CERT	☒ Y	N	<u>HT: MA20181619</u>
CORRECT MATERIAL IDENTIFICATION	☒ Y	N	
CORRECT M# ON THE MATERIAL	☒ Y	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	☒ N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	☒ N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>61</u> DATE: <u>FEB 05 2019</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in